

AMERICAN FRUIT GROWER MAGAZINE



September, 1930
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American Fruit Grower MAGAZINE

with which is consolidated
AMERICAN PRODUCE GROWER

VOLUME 50

NUMBER 9



The Grape Control Plan Should Meet With Success

A SECOND strenuous attempt is now under way to bring the California grape situation into subjection. The present plan consists in brief of leaving unpicked a sufficient portion of the crop to bring the volume of the harvested portion down within the known demands of the market.

For the purpose of carrying out this procedure, a Grape Control Board has been set up under the direction and approval of the Federal Farm Board by California Fruit Exchange, California Vineyardists' Association, and the San Joaquin Grower-Shipper Association.

Eighty-five per cent of the crop has been placed under contract to this Control Board, the growers assenting to all rules laid down by the Board, one of which stipulates that the grower shall sell his grapes only to or through such buyers as have agreed to co-operate with the Control Board, also to pay by authorized deduction from sales \$1.50 for each ton of grapes sold in any form whatsoever. From the funds so secured the Control Board finances the purchase of grapes left on the vines, and the cost of operation.

The Control Board has made an initial purchase of 375,000 tons of raisin grapes, which are to be left on the vines unpicked, making an advance of \$2 per ton and with further amounts known as "progress payments" to be paid to the grower as the plan proves successful. An additional 50,000 to 100,000 tons of table and wine grapes are to be similarly purchased by the Control Board and left unpicked. It is contemplated that the growers shall ultimately receive not less than \$5 and it is hoped as high as \$11 for the grapes not picked.

The Control Board has also purchased for the Fruit Industries, Inc., 57,000 tons of black and white juice and table varieties at an average price of \$15 per ton. It is believed that 200,000 tons of raisins from the present crop will, with the carry-over, nicely supply the market demands at a profitable price. This amount on the three-to-one ratio will require 600,000 tons of raisin grapes.

The production of California grapes of all kinds for 1930 is estimated by the Bureau of Agricultural Economics at 2,078,000 tons, and with the foregoing amounts deducted from the crop, less than 1,000,000 tons will be left for the fresh fruit market—slightly less than the normal demand. It is hoped that the market, in the face of this artificially shortened crop, will respond with higher prices. But, during the early portion of the season at least, the market is showing no such response. Instead, there is the disposition to figure

BUSINESS OFFICES

CHICAGO.....53 West Jackson Blvd.
NEW YORK CITY.....601, 250 Park Ave.
CLEVELAND.....Standard Bank Bldg.

HARRY W. WALKER
BUSINESS MANAGER

CHESTER G. CAMPBELL
EDITOR

Associate Editors

T. J. TALBERT

W. C. O'KANE

somewhat along this line: The growers are selling to the Control Board at \$5 to \$11 per ton. If to this amount the cost of picking, packing, commissions and transportation is added, the sum total should represent the opening price.

Should the markets generally hold to this view, the result in all probability will be the wrecking of the Control Board plan, in spite of the curtailed crop. Such an unfortunate outcome might react unfavorably on the financial health of the distributing organizations in the future.

In the present situation the Farm Board has approved of a plan wherein the existing distributing organizations are recognized and utilized. The successful operation of the grape control plan would provide irrefutable arguments for the adoption of a working plan in marketing per-

ishables whereby the existing marketing machinery would be utilized to its fullest extent, to the benefit of producers, distributors and consumers.

If the distributing organizations lend the weight of their influence to the advancement of the Control Board plan, such a course should prove highly beneficial to the distributors in the future.

Commercial fruit growers and fruit growers' organizations have been and are generally very cool to any Farm Board proposal which might have the effect of disturbing existing marketing organizations. And this is but to be expected. The established marketing firms in the fresh fruit and vegetable field have given the producers fairly satisfactory service. In the apple industry, the more stable class of producers very generally have courteously but none the less firmly made plain to the Farm Board that they will neither encourage nor countenance any disturbance of distributing organizations.

But growers of all perishable crops are viewing the California grape experiment with more than casual interest. The grape control plan should succeed. If it should fail and this failure should be chargeable to the non-co-operation of the distributors, it might prove highly unfortunate in the long run for all distributors of perishables.

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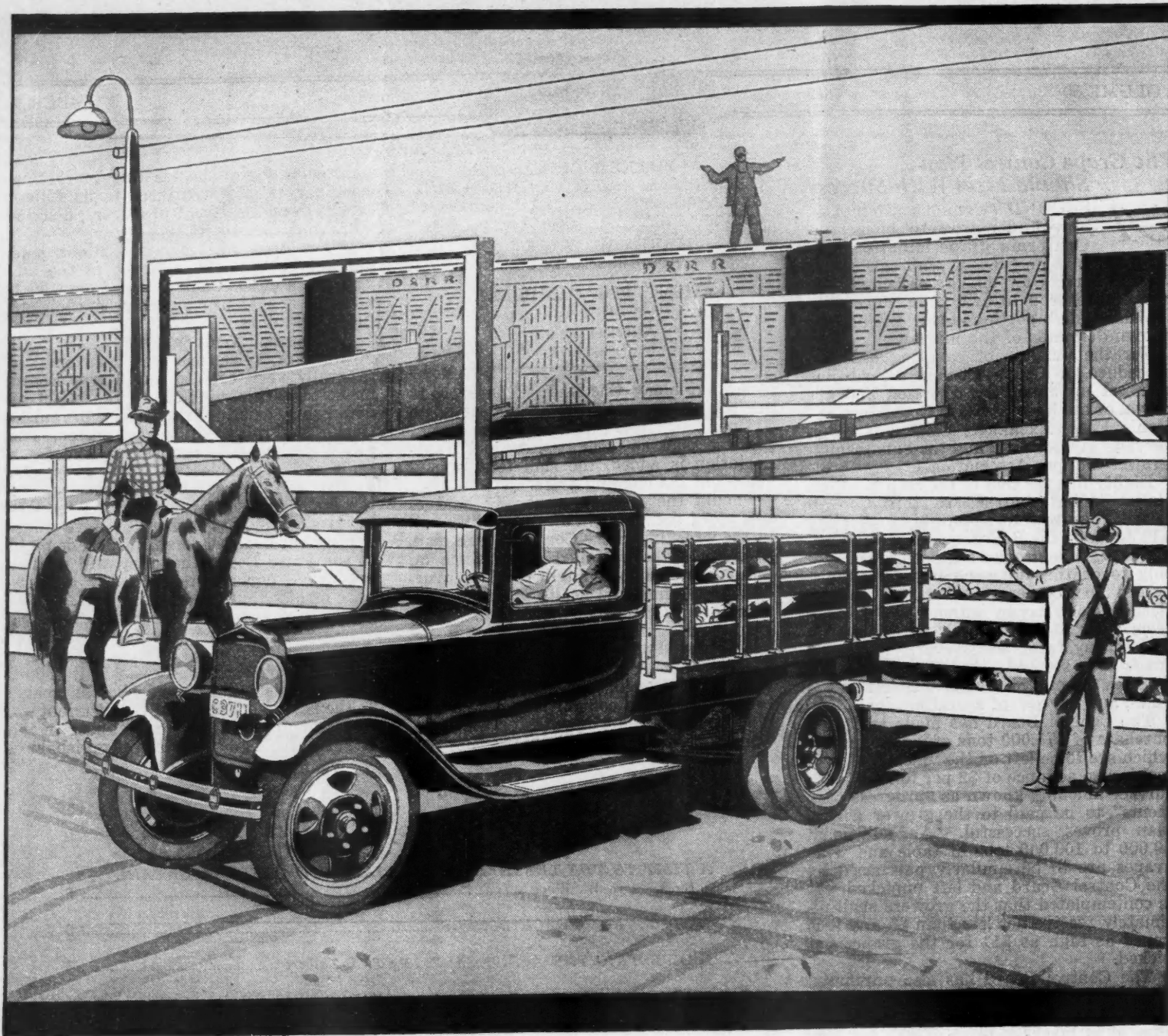
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**Hauling hogs to the stock-yard
or feed to the farm,**

the Ford Truck pays its way



THE design of the Ford truck is such that it lends itself exceedingly well to farm use. It is built of the finest materials obtainable. All moving parts, which have a direct bearing on its performance over a long period of usage, are manufactured with remarkable care and precision.

The price of the Ford truck is low, in accordance with the policy which characterizes all Ford products. This low price is made possible by Ford production facilities, and by a sincere desire on the part of the Ford Motor Company to provide a low-priced haulage-unit of high value.

You will be pleased by the way the Ford truck carries a load over uneven ground, up the hills, across soft, muddy stretches. And by its able performance under all the varying conditions of road and load that a truck must meet on a farm.



Strength of the Ford truck chassis is one reason for the long and reliable service it gives. Forty different kinds of steel go into the making of the truck. Fine steel forgings are extensively used. These all give increased resistance to strain and wear, without adding to chassis weight. More than twenty ball and roller bearings reduce friction at important points, and prolong the life of the truck.

New features of the truck, which add to its value, are the spiral bevel gear rear axle; two optional gear-ratios; 4-speed transmission; heavier front axle and spring; larger brakes; and dual rear wheels available at small additional cost.

Go to your Ford dealer and see this truck. Consider its low first cost. Then let the dealer show you how inexpensive it will be to operate and maintain in your service.

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A VISIT to the LEATHERMAN ORCHARDS on CHERT MOUNTAIN

AT RADA, WEST VIRGINIA, in the heart of the beautiful Alleghany Mountains, 10 miles from Romney, the oldest town of West Virginia, is to be found one of the most beautiful and profitable apple orchards in the country.

The Chert Mountain Orchard is particularly interesting because of its location and the many acres of uncultivated land which make up its surroundings. Viewing the scene from an eminence overlooking the orchards, one stands speechless—over-awed by the magnificent panorama of orchards, hills and mountains. Tier after tier of the most beautiful hills, gradually rising higher and higher, attaining at last the proportions of mountains. Back of the hills mountain range is piled on mountain range, as far as the eye can see, presenting a spectacle that defies the artist's brush or the writer's pen.

It must have been these picturesque hills and grand old mountains that furnished Ed Leatherman with the courage to undertake the development of an orchard in the wilds of the Alleghanies. For, back in 1909 when he purchased the tract of land upon which the Chert Mountain Orchards now stand and with 28 men took up his abode in the little mountain cabin on the place, his friends shook their heads, and if they said, "Ed is too visionary," they mildly expressed what they felt. For how could anyone stretch their imagination far enough to vision an apple orchard in this place!

Ideal Orchard Soil

BE this as it may, Mr. Leatherman had found here an ideal location for orchards. Chert soil, which retains moisture; an abundance of soft spring water, with natural gravity adequate for stationary spray system, eliminating all necessity of pumping; land lay which afforded fine water drainage; with the hills

This Two Hundred Fifty-Acre Apple Orchard was Planted On the Virgin Soil of a Mountain Slope Where Natural Advantages Abounded. Modern Methods of Production Coupled with a National Distributing Organization Brought Prosperity to this Farsighted Grower.

By LEONORA W. WOOD

production is far less in the well grassed orchards, so much time and labor being required to keep down the filth on the ungrassed lands.

Then, too, the Chert Mountain Orchards were among the first in this section to establish a central spray system and from the first installed one of the most complete to be found in any orchard.

The pump is an 80-gallon per minute Domestic. Pump pressure ranges from 600 to 700 pounds. The needle is never allowed to drop below 600 pounds.

This plant is operated by a tractor which also runs a generator, from which power and light for the packing house and other work about property is obtained.

Plentiful Supply of Water

IN SPEAKING of his spray system, Mr. Leatherman refers again and again to the soft spring

water with which his orchards are so abundantly supplied. This he considers to be the greatest natural advantage afforded by the location of orchards. The stationary spray system is so located that the water flows into it by gravity, eliminating all pumping.

"And," says the orchardist, "one of the most important factors in apple growing is to know when and how to spray." In these orchards spraying begins during the dormant period, usually just before the foliage comes out. For this dormant spray an oil preparation is used. Then follows the "pink" and petal-fall sprays, of lime-sulphur and lead. Then the 21-day spray and the five-week spray. Mr. Leatherman believes in applying every spray that is needed, and is governed by weather conditions as well as the insects which make their appearance in the orchards.

Sixty Tons of Nitrate

IT IS, perhaps, in the minute details of fruit growing that Mr. Leatherman best proves his ability as an orchardist. Every phase of the industry was given careful study even before the first trees were planted. This careful, systematic planning shows itself in the planning of the orchards as well as in the planning of packing house and placing equipment. It can also be seen throughout the business management of the industry. Mr. Leatherman knows, from an analysis of the soil, as well as

close observation of yearly crops, that his orchards need 60 tons of nitrate of soda per year. He knows the number of men that will be required for pruning the trees, the number of pickers, packers, haulers, etc. And he has made a careful estimate of the cost of production for each crop.

Time-Saving Conveniences

THE trees have been planted so that in every fifth row is a road for trucks. The pickers place apples in field crates on the banks of these roads, where they are picked up by haulers and

Getting the slope ready for planting

immediately taken to the packing shed.

The packing house is modern and convenient, well lighted and well ventilated. Waste space and labor are eliminated. The fruit moves in one direction from the receiving to loading platform; and in 10 hours 30 packers can have 3000 bushels ready for shipping.

Two men are employed at the station where the apples are loaded into cars. They attend to loading and billing. The fruit is shipped in refrigerated cars if the weather conditions and long haul warrant it. The men in charge of shipping must see that every package loaded into the cars is in good condition and that all fruit is shipped in such a way as will insure its reaching its destination in the best possible condition.

Sales "Hook-up" Important

CAREFUL attention is likewise given to the grading and marking of apples. Dealers who handle "Chert Mountain, Sun Sheen" apples, the "Tip Top" or "Blue Goose" brands may be assured of "Truth in Package." "This," says Mr. Leatherman, "is one of the first things any grower should do: establish a high reputation among the trade. The question of marketing is the biggest question that confronts the average grower and much depends upon the quality of the

pack and the assurance that the buyers have that they will get what they order. A good marketing connection is also a desirable asset. A good idea is to affiliate with some well established, well functioning selling organization and stay with it. And when you have made a connection with a reliable selling organization, remember that the men at the head of this organization are human, they will sometimes make mistakes. You may not get just as much for a car of apples as you think you should, but don't get mad, 'fly up' and break your connection. Perhaps you will get more than you expected for the next car, and after all it pays to sell all your fruit through one organization, if at all possible."

The products of the Chert Mountain Orchards are famous for beautiful coloring, fine quality and splendid storage properties. Each year production is being increased and apple growing is becoming more interesting as well as more profitable for this grower, who has proved that an Alleghany forest is a splendid place for a commercial orchard.

An Ideal Orchard Home

A MODERN home, with the conveniences of any town house, has replaced the mountain cabin. A school house, with all modern equipment is under the same roof, and the Leatherman children enjoy educational advantages superior to those attainable in most public schools. A teacher is employed for nine months each year, but the courses are planned and work carried on under the direct supervision of Mrs. Leatherman. With good roads leading in every direction, automobiles and radio, the Leathermans are not isolated from the outside world. They enjoy their country home, but turn to the city when it has something more attractive to offer.

Fruit growing in the Chert Mountain Orchards means



Clearing the mountain slope for the planting.

furnishing a natural protection from the cold winds and freezes. And, according to Mr. Leatherman, "Added to all these advantages I found that the surrounding country could furnish plenty of native labor, efficient and anxious for work."

The virgin forest was cleared, all trees cut to ground level. Then came one of the most difficult tasks: clearing away the undergrowth and breaking the root-filled soil. But nothing daunting, the work went forward, and between 1909 and 1916 two hundred and fifty acres of forest was converted into rows of apple trees. In 1929 more than 50,000 bushels of choice Grimes, Delicious, Rome, Yorks, Stayman and Jonathan apples found their way to market. And within the next few years Mr. Leatherman expects to see his orchards reach an annual production high mark of 100,000 bushels.

Scientific Methods Employed

MR. LEATHERMAN believes in scientific horticulture and has well established reasons for methods employed in growing and packing fruit. His orchards have been made a kind of experiment station for the fruit growers of this section. Extensive experiments have been carried on in grassing orchards. Blue grass is found to be especially adapted to Chert soil, and while production may be slightly less in the sod-mulch orchards, the fruit is of better quality and more highly colored. Then, too, it has been found that the cost of



This cabin housed the 28 workers who cleared and planted the orchard site.

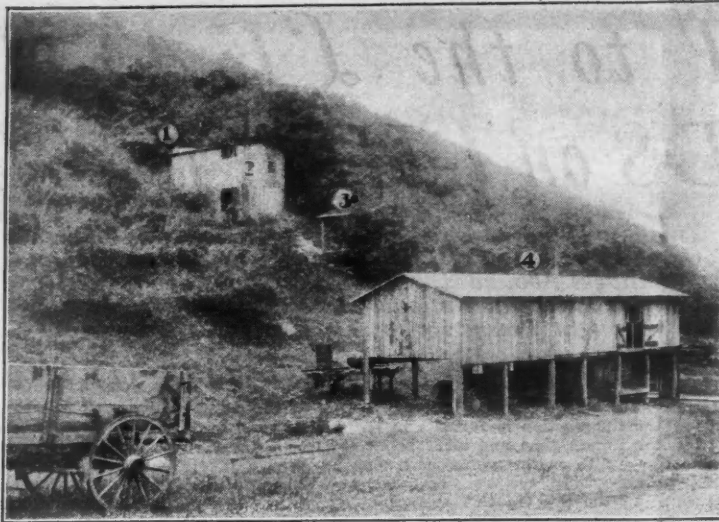


an abundance of work—work for 12 months of every year, but it also means a profitable, enjoyable business. Mr. Leatherman's experience as a commercial orchardist has been an inspiration to the growers of West Virginia, and as president of the horticultural society of the State he has been able to pass along many suggestions that have been helpful to other growers. His orchards are well located, in close proximity to some of our largest cities, and it is not hard to vision numerous other orchards on the beautiful hills surrounding his home.

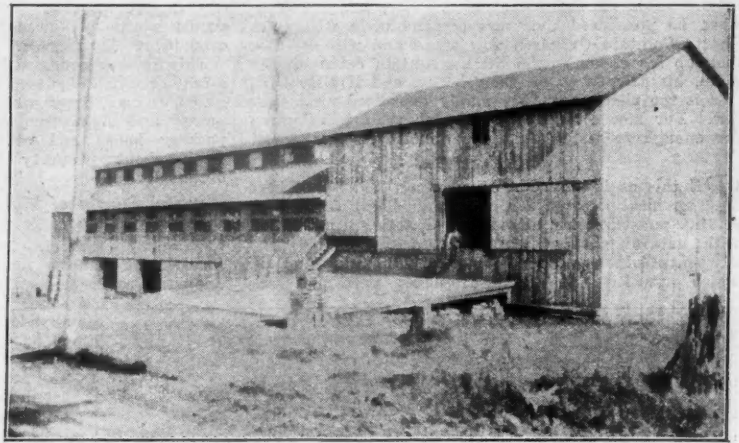
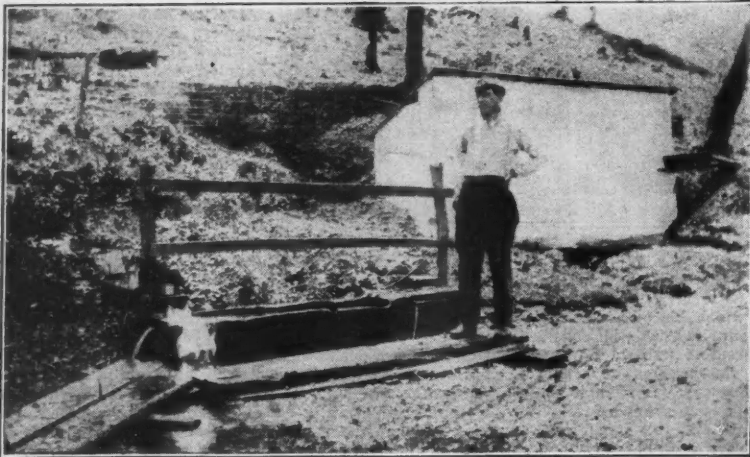
Grapefruit Canning a Steadily Growing Industry

THAT the canning of grapefruit is developing into an industry of sizable proportions is indicated in a bulletin which has just been issued by the Food-stuffs Division of the Commerce Department. During the past ten years, the bulletin shows the output of canned grapefruit from the United States and Porto Rico has risen from 2000 cases to approximately 1,850,000.

Florida is the chief producing area in the United States, although small amounts are packed in Texas, Georgia and North



Above.—The stationary spray plant: 1, Water storage tank to supply lime-sulphur cooking plant (2). 3, Water storage tank to supply mixing and pumping plant (4). Below.—Left, The mountain supplied an abundance of soft water without pumping. Right, In this modern packing plant 30 workers grade and pack 3000 bushels daily.



Carolina. Approximately 10 per cent of total production goes into export trade, Canada and the United Kingdom being the largest foreign buyers of this product.

In both the domestic and foreign trade canned grapefruit is used as a substitute for the fresh fruit. It is put to the greatest variety of uses in the United States, being employed as a breakfast fruit and in the preparation of fruit salads, fruit cups, and other fruit preparations. It is used in about the same ways in Canada, but in the United Kingdom its use is confined almost entirely to "hors d'oeuvres" before the mid-day and evening meals, it not being the general custom in that country to use fruit for breakfast.

The distinctive flavor of the grapefruit which has made it so popular in the United States and to a lesser degree in the United Kingdom has militated against its use in some foreign countries, according to the bulletin.

Together with grapefruit, considerable quantities of grapefruit juice have been canned in Florida during recent years. Most of this has been consumed in the United States, although some demand has been created in Canada and the United Kingdom.

"P. D. B." for PEACH BORERS

IN THE CONTROL of the Peach borer with paradichlorobenzene ("P. D. B."), crystals of about the fineness of granulated sugar have been found most satisfactory. They vaporize slowly at ordinary temperature, and the vapor is much heavier than air.

The gas is deadly to insects when confined in the vapor, but is not poisonous to man or domestic animals. When the material is applied properly and at the right time, as specified in the following directions, a 90 to 100 per cent control may be expected.

Age of Trees

IN the southern States paradichlorobenzene can be used with safety on healthy peach trees four years

Control for Borers Should Not Be Neglected Even Where the Peach Orchard Failed to Bear Profitably During the Present Season.

of age and older. In that region it should not be used on one, two, and three-year-old trees, as experiments have shown that trees of those ages may be severely injured by paradichlorobenzene under certain weather conditions. It will be necessary for southern peach growers to continue to use the old method of worming one, two, and three-year-old trees for borer control.

In some of the States in other regions paradichlorobenzene is recommended for trees of all ages. Experiments conducted by the Indiana Agricultural Experiment Station and the Illinois State Natural History Survey have shown no injury to any age trees under conditions in that latitude, and in those and some other States outside of the southern territory paradichlorobenzene is recommended for use on any age trees.

Size of Dose

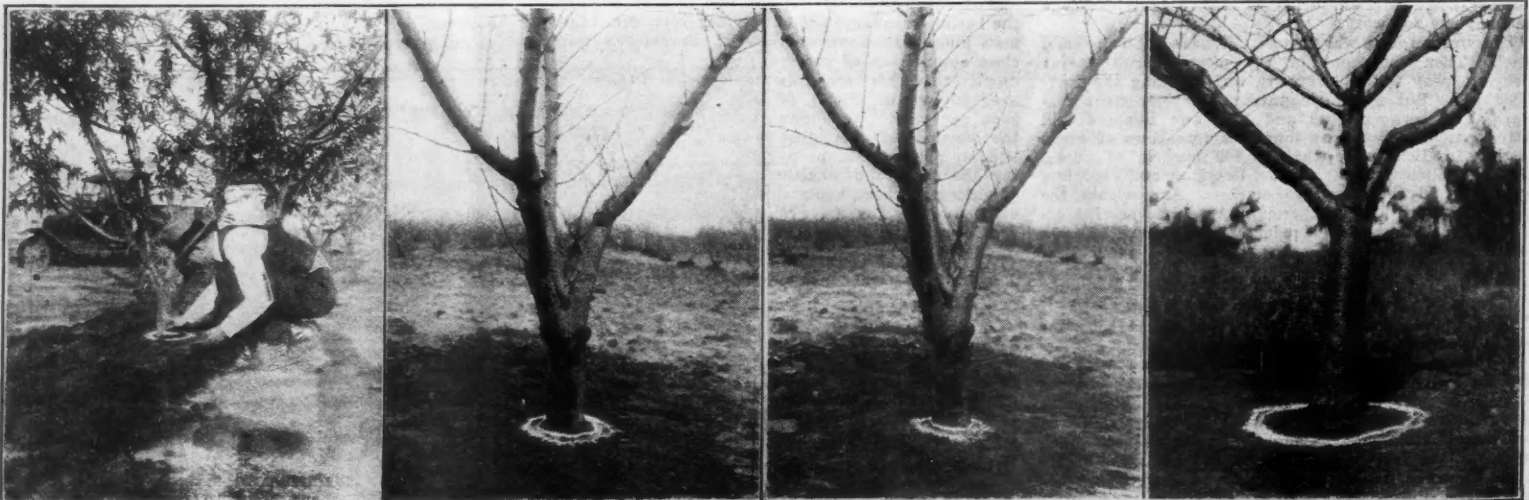
FOR four and five-year-old peach trees use three-fourths of an ounce of the chemical per tree. For trees six years of age and older, of average size, use the full one ounce dose per tree. (To page 14)

Figure 1. Applying paradichlorobenzene with a handy cone-shaped container that holds exactly one ounce.

Figure 2. The ring of crystals should be about 1 1/2 inches wide and 1 1/2 inches from tree trunk.

Figure 3. If the chemical is placed against severe injury may result.

Figure 4. In this case the crystal ring is too far from the tree trunk for effective results.





To kill bug and blight

be certain of **PRESSURE**

For spray to work it must be placed where trouble lies—the under side of leaves, against the trunk, in intercalices of blossoms. Which means *pressure*.

Goodyear has developed Hy-Pressure Spray Hose to do just these things. It is a fine *triple-braid* hose. *It holds all required pressures safely and easily.* It is impervious to spray chemicals and so covered with especially compounded rubber as to

resist dragging and abrasion from tree trunks and sharp edges on rig.

You cannot find better insurance for your spray doing its job than Hy-Pressure Spray Hose. Experienced growers call it "essential" in modern orchard practice. Standard everywhere on the best spray equipment.

Equip your rigs now with Goodyear Hy-Pressure Spray Hose. In $\frac{3}{8}$ ", $\frac{1}{2}$ ", and $\frac{3}{4}$ " sizes, and in lengths to 500 ft.

GOODYEAR
WINGFOOT
SPRAY
HOSE
*in $\frac{3}{8}$ " and $\frac{1}{2}$ " sizes, is
a capable hose for
average pressures.*

GOOD  **YEAR**



QUESTIONS and COMMENT

Conducted by T. J. TALBERT

Questions on fruit growing problems and on general horticulture will be answered through this department if of general interest. For reply by mail enclose 2c stamped envelope (air mail 5c). Address AMERICAN FRUIT GROWER MAGAZINE, 53 West Jackson Blvd., Chicago.

Harvesting the Apple Crop

HIGHLY COLORED and well matured apples usually bring the best price and possess the greatest keeping qualities. It is also generally known that to market apples successfully it is essential that they be clean and well grown; that the proper time of picking be observed; that they be handled carefully; that the grading be uniform; and that the packages be clean, attractive, tightly filled, and properly faced and labeled.

In all harvesting operations care in handling the fruit should be emphasized. This is especially true in picking apples. The actual operation varies with the pickers, but in general it consists of a simple twisting movement up and down on the fruit, which separates it from the fruit spur without pulling out the stem or breaking off the spur. Apples should be laid, not thrown or dropped, in the picking basket or sack. In emptying the sack or basket the same should be

lowered to the bottom of the crate or other container and the fruit carefully emptied, thus preventing bruises and stem punctures.

Time to Pick

THE determination of the proper time to pick fall and winter apples is more difficult than is the case with summer apples. The different varieties offer different problems. Some varieties, of which Jonathan is an example, become hard ripe relatively early; others ripen later. Some suffer in keeping quality if picked too late. Other varieties keep best if left on the tree until relatively late. Jonathans tend to soften on the tree and suffer from Jonathan spot and decay after picking if left too long. It is generally best to harvest apples as soon as they have developed good size and color. During a hot dry fall they tend to drop badly, and may start to drop before they

have colored up. When apples which are uninjured by insects or disease start to drop of their own accord, the crop must be picked to save it, regardless of size and color.

Late varieties, like Winesap, Ben Davis, York, Ingram, etc., become picking ripe later in the season than Jonathan. They increase in size and red color through the season. With most varieties, it is best to leave the apples on the tree until the yellow ground color develops to some extent. If they start to drop or soften on the tree, of course, they must be harvested. The eating quality of early picked apples tends to be poorer than that of later picking. Storage scald has been found to be reduced by allowing such varieties as Grimes, Huntsman, and Golden Delicious to become fully hard ripe before picking.

Labor conditions are bound to influence the grower in deciding when to pick. If he has a big crop he may have to pick some trees too early, and others too late. He should not let his eagerness to get the crop off induce him to pick the bulk of his apples too early. Market conditions may also affect the decision. It is usually unwise to leave apples on the trees too long in the hopes of a better price. They may become soft or blow off. Certain varieties have been found to keep better for a time on the tree than they did in a common storage cellar.

There are definite signs and indications which are used by growers to tell whether or not their apples are ready to pick. Most of these are undependable. Color of seeds is often used. In some cases the seeds are brown weeks before the apples are ready to pick. The development of a large amount of red color does not give satisfactory evidence that apples are ready to pick. The poor eating quality of some apples is due to the fact that they are picked when completely covered with red over color, but have not really matured properly. The ease of separation of the stem from the twig is also deceiving, as it is influenced by climatic conditions.

Use of Pressure Testers.—An instrument known as a pressure tester is now being used to determine the ripeness of apples. By its use the hardness or softness of apples and other fruits can be determined with fair accuracy. This pressure tester is used by growers and experiment station workers.

Utensils for Picking

APPLES for a fancy market should be picked in baskets, care being taken at all times not to bruise the fruit or puncture the skin. The commercial apple crop is usually picked in picking bags or aprons. The apples should not be allowed to fall a long distance into the container, and the picker should not let his picking bag or apron bounce from round to round of the ladder when descending. Reasonable care should be exercised in dumping the fruit into the barrels, boxes, or on the packing table. Fruit should always be removed from the tree by means of a sideways twist. The practice of pulling off fruit, spur and all, is to be avoided, as it may reduce the number of spurs sufficiently to affect later crops.

How to Pick

THE quality and appearance of good apples requires careful hand picking. Bruises and stem punctures should be guarded against in placing the apples in the picking receptacle. It is important that the apple be picked with the stem attached. When the stem is removed an opening is made in the skin which may induce early decay. Some growers even instruct the pickers to handle the apples as carefully as eggs, because the slightest bruise will often hasten decay, injure the appearance and lessen the value of the products. On beginning work, picking crews should be given detailed explanations regarding care in picking and handling the fruit.

Ladders

MANY different styles and types of ladders are in use. In general most types are satisfactory. For small trees the low, three-legged ladder is usually most serviceable, while for taller and larger trees the long, pointed ladder may be used efficiently. Common ladders of various lengths are also employed with good results. To prevent slipping, it is

often advisable to have the bottom of the ladders shod with iron spikes. It is important with all ladders that they be as light and durable as possible. Their proper use will prevent much injury to the trees by keeping the pickers from climbing among the branches, rubbing off fruit spurs and puncturing the bark of branches with the heels of their shoes.

Lug Boxes

THE fruit from the picking receptacle is often emptied into what is known as a "lug box" which is used in hauling the fruit to the packing plant. These boxes should be strong and durable and wide enough to enable the picker to lower his receptacle to the bottom in emptying the fruit. The ends of the boxes should also be equipped with grooves cut into them to make handling easier. If the ends of the lug boxes are raised above the sides, they may when filled be placed one above another without danger of bruising the top layer of fruit.

Handling the Picking Crew

IN a large orchard a foreman is necessary for the most efficient work. It may be well to have a foreman for every six or eight pickers. The foreman must for satisfactory work use tact and discretion in the handling of the pickers. He should be able to readily detect differences in the personality of pickers and be able to adjust these in a way suitable for the accomplishment of the task at hand.

Apple Picking Don'ts

1. Don't break off the fruit spurs.
2. Don't pull the stems from the fruit, as the stems should always remain on.
3. Don't injure the fruit with stem puncture.
4. Don't pull the apples; remove them by an upward turn and a slight twist.
5. Don't drop the fruit; carefully place it in the container.

Wormy Grapes

Can you tell me how to prevent grapes from getting wormy when they commence to ripen?—L. J. M., Ohio.

MOST of the wormy grapes found on vines are due to an attack of the so-called grape berry moth. The insect overwinters, as a rule, in the pupa or resting stage. The moth emerges in the spring and lays eggs on the stems or fruits. Thorough and timely spraying with arsenate of lead will control the grape pest. The first spraying should be made just before the grapes bloom, the second soon after the blooms appear, and the third when the berries are about half grown.

Soap at the rate of two or three pounds to 50 gallons of spray material may be added to make the spray stick and spread to better advantage.

Plowing the vineyard in the fall should destroy many of the overwintering pupae.

Cost of Starting a Cherry Orchard

I wonder if you have anything on cherry growing, that is, the cost, etc., of starting an orchard of about 10 acres, beginning after the ground has been plowed and ready for the trees. Advise what it would cost to bring the trees into production per acre, that is, the cost of planting, spraying, cultivation, etc., for the first two or three years.—C. J. K., Michigan.

WE CAN perhaps answer your question best by quoting a paragraph from Michigan Special Bulletin No. 166, May, 1927, copy of which you may be able to secure by writing the Michigan Agricultural Experiment Station, East Lansing, Mich.

"The average annual maintenance costs per acre for seven different bearing blocks of cherry trees were: (1) Interest on orchard investment, \$37.02; (2) orchard depreciation, \$27.72; (3) interest on establishment, \$3.62; (4) 'establishment' maintenance and depreciation, \$15.83; (5) supervision, \$15.85; (6) fluctuating orchard maintenance—labor and supplies, \$49.82; (7) taxes and insurance, \$4.98; total, \$159.78. The items which showed greatest variation from block to block were interest on orchard and the fluctuating labor and supply bills, particularly those for spraying."

Pollinating the Delicious

I have a block of 31 Red Delicious nine years old. Last year I got the first crop of 75 bushels of very nice, large apples. Last week I picked 50 bushels. Some trees bore a good crop, while some had only a half bushel, and many of the apples have no seed. Do you think this is due to not having a different variety to pollinate the Delicious? Four years ago I replaced two Delicious I lost from root rot with Arkansas Black. Last year I had a few apples on one of them and this year I have more than half a bushel. But this variety does not seem to pollinate the adjoining trees. Two years ago I lost nine trees with root rot. I took the pollination question up with our field man of the horticultural society, as I had a chance and wanted to replace the trees with proper pollinizers. But he told me that Delicious do not need any pollinizers, so I replaced the

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lost trees with Golden Delicious. I have again lost three trees and have a chance to put in some pollinizer this fall. I would like to set some Cortlands, if you think they would be good pollinizers. How would the new all Red Delicious do? And Golden Delicious? I am planning next fall to set over one acre to Delicious and want to be sure to have the proper pollinizer. Please name a few good ones.

As I said before, I am troubled a great deal with root rot. Is there anything I can do?

Some of the resettlings I have made grew nice for two years and then died. How would it do to set the trees a few feet from the original places, the trees being set 33 by 33 feet. This ground was cleared of timber 14 years ago. The land adjoining this, which I am planning to set next fall, was cleared five years ago and the stumps have not as yet been removed. Does such ground favor root rot?—J. C. S., Tennessee.

REPLYING to your inquiry in reference to the pollination problem which you describe, it is possible that at least one factor to be considered in determining the cause of lack of good fruiting this year may be due to a lack of good pollinizing varieties of apples blooming at approximately the same time and growing near your Delicious trees. In our experimental work some of the best pollinizers for Delicious are Golden Delicious, Jonathan, York, and Grimes.

The Cortland may not be as well adapted to your region as some of the other varieties named, although if you wish to try a few trees, it might be well to do so.

No one has yet worked out a definite remedy or means of preventing in a satisfactory way the so-called root rot disease. It has been found, however, that generally apple orchards suffer more from the malady when planted on ground where the stumps or timber has not yet been completely destroyed. In other words, the disease may be held over for several years in the old decaying stumps and roots of the timber. Moreover, good drainage also helps in the control of this disease.

In setting your new orchard you may secure, as you suggest, better results by placing the new trees to one side of the original places where the old trees stood.

Brown Rot Control

I have a number of plum, cherry and nectarine trees. These trees flower prolifically in the spring; fruit forms properly but soon becomes spotted with black spots. If the fruit remains on the tree, this black spot grows until it completely covers the fruit. The flesh seems to rot and in a short while all that remains of the fruit is a withered, mummy-looking covering on the stone. What is the proper treatment for this disease? I sprayed the trees three times last year with lime-sulphur and have gathered as many of the diseased fruit from the trees as possible this summer; kept the ground free from drops, and last winter picked all mummies off the trees.—E. H. T., New York.

IN ALL probability the fruit of your plum, cherry, and nectarine trees is affected by the fungous disease known as brown rot, and the reason for a lack of control is due to the fact that the sprays were not applied at the times best suited for control.

In addition to practicing clean culture as regards the destruction of mummied fruit, as you describe, it may be found necessary to use peach, plum, cherry, and nectarine sprays just before blooming, immediately following the dropping of the shucks or calyxes and then make additional applications at intervals of about two weeks up until within five or six weeks of harvest time.

In all spraying work too much emphasis cannot be placed upon the matter of thorough work and timeliness of applications. For further details as to the kind of spray to use and other problems connected with your particular locality, you are referred to your own agricultural experiment station at Cornell University, Ithaca, N. Y., or Geneva Agricultural Experiment Station, Geneva, N. Y.

Increasing Fruitfulness of Grapevine

I have a "Scuppernon" grape vine which has grown very rapidly for about five years. It has covered a large arbor and we have added extensions every year to take care of the excessive growth. I have never pruned the vine as I have been told that there is a certain time for pruning this grape and that unless it is done at the proper time damage will be done. On this big arbor about 15 by 25 feet, we get only about two gallons of grapes each year. The top of the arbor is very thick and the vine hangs down to the ground on each side, the supports being about six feet high. It's time now to build another annex unless we prune the vine. We are not getting enough fruit to justify the space and trouble necessary. Any suggestions from you will be appreciated.—S. O. S., Arkansas.

THE "Scuppernon" grape which you describe may be pruned so as to keep it in bounds upon the trellis which you have prepared for it, and by so doing

you are likely to increase fruitfulness. In all probability one reason for a comparatively small amount of fruit being produced up until this time is due to the fact that too much fruiting wood has been left.

Of course, you have the problem of using the vine for trellis purposes and at the same time for fruit. It is not always possible that both purposes may be realized to the fullest extent; but certainly since you have covered the arbor sufficiently with the vine, from now on you can prune it properly and keep it under control, and if judgment is used in leaving a sufficient number of new canes each year for fruiting, you should be more successful in securing fruit crops.

A Good Decision

For years I have wanted to grow an apple orchard of the finest varieties and specialize in raising apples of the finest quality. My father owns 40 acres of high rolling hills of a rich sandy loam, some of the very best apple land in this country, and I should like to plant on this land two or three of the best commercial varieties of apples, we to grow our own trees. We have several hundred two-year-old trees in the nursery row now. They have been inspected by the State nursery inspector and were pronounced O. K.

I will give you an idea of the conditions here and I would like to know if you think it advisable for me to undertake this plan. Dad will deed me the 40 acres which have no buildings on them. I will have to build a home there. I can set out about 500 two-year-old Stark Golden Delicious and Starking apples this fall, and graft the rest that I will need this winter, so the trees will not cost me much.

Owing to bad seasons and misfortune in my family, I have not much cash on hand but will have to get a loan on the 40 to build with and carry me on till I get started. This ground grows good crops and I can make a living off it after I get started. I would set about 12 acres in apples this fall and add to it as fast as possible until I have about 32 acres of trees on the 40. This would give me enough trees so I could devote my entire time to them as soon as they begin to bear.

Do you think I can make good money growing two or three of the very best commercial varieties of apples on this farm, and is the apparent future of apples good enough to justify the effort necessary to bring an apple orchard into production? If so, what varieties of apples would you suggest? I prefer the Golden Delicious and Starking 50-50.

Do you think I can hold this place until my trees come into bearing under these conditions? Any advice or suggestions you can give me on this subject will be greatly appreciated. R. S., Illinois.

IN GENERAL, we believe that your decision in reference to planting an apple orchard on your 40-acre farm is a good one; to start in a small way and plant a few acres each year might prove the best plan. This is true because you would learn better methods of planting, culture, fertilizing, pruning, and spraying as you develop your orchard.

One important matter which you suggest should be given attention and that is the matter of an income from the land while the trees are coming into bearing. If it is possible for you to have a market for truck crops, such as potatoes, sweet potatoes, cabbage, onions, tomatoes, and possibly small fruit, you may make a portion or all of the orchard land pay while the trees are coming into bearing.

The varieties which you mention, Golden Delicious and Starking, will make the very best quality of apples to grow. You might also add to this list such varieties as the Jonathan, Stayman, and Winesap.

It would also be well to plant the varieties in blocks, alternating the trees with each other in order to secure the best results from cross pollination at blooming time.

Avoiding Injury to Grapes from Bees

I am having trouble with my grapes. The bees are working on them. Do you know of anything that will keep them off?—M. K., Alabama.

PERHAPS the best way to avoid injury to grapes from bees consists of spraying the grapes and in growing the grapes to the ripening stage without punctures or injuries. Following this, of course, the grapes should be harvested promptly when they are ripe. If for any reason the grape berries are allowed to hang on the canes and become over ripe, much injury is liable to occur from bees.

We may summarize by saying that we should grow the grapes in the best possible way in order to secure a high quality, firm, well ripened berry. If they are not allowed to become over-ripe, little or no injury will occur from bees.

Lawns should be cut during the fall. If the grass is allowed to remain uncut through the winter, the lawn will be rather spotted in the spring and considerable reseeding will be necessary.

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FRUIT and VEGETABLE REVIEW

By PAUL FROEHLICH
U. S. Bureau of Agricultural Economics

PROLONGED dry, hot weather had a serious influence on the fruit and vegetable situation during late July and early August. Fortunately, the greater portion of the country's fruit supply is grown outside the area of greatest drought damage, and fruits had not suffered as much as vegetables and grain crops. Apples were in a critical position in the Cumberland-Shenandoah area and the Ohio Valley. It was expected that only about one-fourth the usual crop of apples would be harvested in Virginia. Peach production prospects were slightly reduced by the opening of August, but increases as a whole were registered for apples, pears and grapes. Condition of California citrus fruits declined slightly, but Florida crops were still in a favorable position. Deciduous fruit production in California was very heavy; some was left to waste.

Mid-August found the southeastern peach and melon movements about completed. Most of the supply of fruits was then coming from sections farther north and from the great western producing districts. Cantaloupes were rolling chiefly from central California though the season was becoming active in Colorado and New Mexico, and fairly heavy shipments originated in eastern States. California pears and grapes were prominent. Apple movement was moderate, and prices rather low. Peaches and melons tended upward in price. Grapes were cheaper than last year.

Early Peaches Finished

THE condition of peaches on August 1 was reported at 46%, which indicates a crop of nearly 47,000,000 bushels or about 2% more than harvested in 1929 and slightly more than four-fifths of the average harvested for the previous five years. Considerable fruit was dropping from trees in the drought-stricken area. The California crop is forecast at nearly 28,000,000 bushels, which would be the largest on record for that State. In the 10 southern early States, where the crop has been harvested, the production is estimated at 10,084,000 bushels, about 14% less than the crop harvested in 1929 and about 44% less than the average for the previous five years. Prospects were still favorable for a heavy crop of 2,000,000 bushels in New York, but Michigan expects a relatively light crop of peaches.

A large portion of the California shipments went to canneries or drying plants, but liberal quantities also were moving to city markets, particularly in the mountain area and the Middle West. By August 10, California had shipped 8100 cars of peaches, compared with 3450 the year before and 9780 cars all of last season. Canners in California had agreed to pay growers \$20 per ton of No. 1 fruit, in addition to paying a representative committee \$6.50 a ton, so as to make up a fund of \$1,750,000 that the committee will use in paying \$13 per ton for the estimated 111,000 tons of No. 1 peaches which will be left on the trees. It was agreed to limit the pack of clings to 13,000,000 cases, including all peaches used in fruit salad, and it was expected that only 300,000 tons of fresh No. 1 fruit would be needed for this season's pack.

Total shipments of this fruit decreased sharply, once the southeastern season was finished, and movement may not reach another perceptible peak until the New York crop is ready. Virginia, Colorado, and Utah were becoming active in mid-August. Market values tended upward with the decreasing supply. Jobbing sales were averaging \$3 or more per bushel basket or per six-basket crate.

Georgia shipments this season were much heavier than originally expected. A recent trade note stated that:

"Commercial production of frozen Georgia peaches was begun on July 10 with the opening of a plant at Montezuma, Georgia. The plant has been equipped to handle 100 bushels of peaches per hour during the peak of the season. The peaches are graded, peeled, pitted, and sliced in a manner similar to canning operations, and are then packed with sugar in 1-lb. waxed cardboard containers. Those containers are loaded on racks and run into a tunnel freezer, similar to the ordinary tunnel dryer, where air at 35 degrees below zero freezes them in several hours' time. They are held in storage at 10 degrees F. The plans for freezing Georgia peaches were conceived several years ago as a possible way of curing the overproduction evil during the short maturity season, as the soft texture of

the fruit makes them unsuitable for canning."

Moderate Crop of Apples

THE condition of all apples was reported on August 1 at 49% of normal. This indicates a crop of 146,440,000 bushels, which would be about 3% more than the short 1929 crop and about four-fifths of the average production for the previous five years. The condition of the commercial crop was reported at 54% and the production forecast at 30,722,000 barrels, which would be about 6% more than last year and about 5% less than the average for the previous five years. With the short crop now in prospect and the short general farm crop, it is probable that a larger proportion of the crop will move in commercial channels this year than ordinarily. The Cumberland-Shenandoah region suffered severely from shortage of water and high temperatures. In New York, northern Pennsylvania and in the northern tier of States westward to Minnesota, where heat and lack of moisture had not been so serious, the prospects were somewhat better. The New England and western States are the only sections of the country where there is promise of an average or better than average crop. In California and the two Pacific Northwest States good crops are expected.

A large crop of good-quality Gravensteins was harvested in the Sebastopol section of northern California. Fully 1,500 cars were expected, or 50% more than last year. Many were for the export trade. By early August the northern producing area in California had shipped 1,750 cars of apples, as against 700 the year before. The eastern States, as a group, were falling short of their 1929 record to this time. Total shipments from all sections in mid-August were at the moderate rate of 75 cars daily. Jobbing prices of eastern apples ranged anywhere from 50¢ to \$2.25 per bushel basket, according to source, variety, and condition.

Plenty of Pears

PEARS were reported on August 1 at 63% and the yield forecast at 24,277,000 bushels, which would be about 13% larger than the 1929 harvested crop, nearly the same as in 1928, and 13% more than the average for the five years, 1924-28. Through the central States, where the drought was most severe, less than two-fifths of an average crop is expected. The New York crop is now forecast as one of the largest since records began in 1909, nearly 3,000,000 bushels. In Washington a pear crop nearly as large as in 1928 is expected, which was the heaviest crop of record for that State. In Oregon and California, the crop as now forecast would be the largest ever produced. The three Pacific Coast States together may have a total of 16,340,000 bushels, compared with 13,600,000 last year.

California had made exceptionally heavy shipments of pears by early August, a total of 6000 cars, as against 3800 to the same time last season. Approximately 400 carloads had come from other States. Washington and Oregon movement was rapidly increasing. Daily average was around 300 cars. The leading interests in California had agreed on prices for No. 1 canneries pears ranging \$30-\$40 per ton, and \$20 for all No. 2 pears. Last year, No. 1 fruit for canneries brought \$75-\$80, and in 1928 the range was \$38-\$42 a ton, with finest stock as high as \$48. Shippers of fresh fruit to market were getting \$1.25 per box of Extra Fancy Bartlett in the Yakima Valley of Washington. Medford, Oregon, quoted a level of \$1.50 per box.

Large Crop of Grapes

THE condition of grapes was reported on August 1 at 86%, which is nearly 3% higher than the 10-year average condition. The crop of 2,350,000 tons is expected to be about 12% larger than the 1929 crop but just about the same as the five-year average, 1924-1928. Drought conditions seem to have been less detrimental to the grape crop than any of the other generally-grown fruits. The weather has been conducive to good-quality fruit, but the berries may be small. Production of 463,000 tons of wine grapes in California would be considerably more than last year and also above the five-year average figure. The expected total of 1,193,000 tons of raisin varieties of grapes would be only slightly more than in 1929 and

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somewhat below average. Table grapes, expected to amount to 422,000 tons in California, would be 35% heavier than last season but still below the average for 1924-1928. Prospects in New York State were reduced to 81,000 tons by August, but the Michigan forecast was increased to 73,000. Estimated production in all States outside of California is 272,326 tons, or only slightly more than in 1929. California expects a total increase of 14% over last year.

Movement had increased to a daily average of 100 cars and was expected to show large proportions by September. Most of the supply was coming from California. The cash-track market in the central part of that State was weak. Thompson Seedless grapes and Malagas were returning shippers only 60¢-90¢ per lug box or per four-basket crate, which was considerably lower than a year ago.

A sufficient number of grape growers in California signed contracts to make effective the co-operative marketing plan of the Control Board, sponsored by the Federal Farm Board. All grapes are to be turned over to the Control Board through co-operatives, and growers are expected to pay \$1.50 per ton on all grapes delivered. The fund created by these payments is to be used in handling the annual surplus of about 300,000 tons.

Citrus Prospects

CONDITION of California citrus crops declined further by the opening of August, but oranges still registered 84% of normal, grapefruit 86%, and lemons 79%. Oranges and lemons were in far better condition than a year ago and grapefruit slightly better. Florida oranges averaged 83% of normal in August, grapefruit 79%, and tangerines 77%. Arizona oranges showed a higher condition figure than those in any other State. Shipments of California oranges during the summer continued at about half the rate of a year ago, but lemon movement was about normal. A few cars of very early grapefruit had been shipped from Florida.

Canning Grapefruit

A LOCAL newspaper recently published the following statement:

"As near as anything could be done, the packers in Florida who are putting millions of grapefruit and thousands of gallons of grapefruit juice into cans for distribution are making available in distant sections a distillate of Florida sunshine; delicious to the taste, full of the essence of health and pleasure, for those who use it. From Tampa comes a report authorized by the Florida Citrus Exchange to the effect that two and a half million cases of Florida canned grapefruit and grapefruit juice will be 'put up' and available for the hungry and thirsty during the coming season. It should be noted that grapefruit is now entering the field as a thirst-quencher as well as a dainty food. Grapefruit juice as now being sent out from Florida canneries is very properly winning a place along with grape juice and other fruit juices as the basis for cooling, refreshing beverages. People all over the United States, Canada and in countries across the Atlantic are asking for canned grapefruit and grapefruit juice. Orders booked are said to have already included fifty thousand cases for export, and the expectation is for ultimate shipment of half as many more."

A later editorial from the same Florida paper had this to say:

"With one thing and another appearing on the horizon, the Florida fruit growers would seem to have much encouragement. From Tampa now comes the information that pre-season indications are for uniformly good prices for citrus fruits and the entrance into the State of several large canning concerns intent upon packing all the fruit that does not grade up for shipment. In the past there has always been a very large amount of fruit wasted. Writing from Tampa, a correspondent says that utilization of practically all culls and rejects, at a rate around 90¢ a box in the grove or the packing-house, means that the growers this season will realize close to a million dollars, actual cash, for fruit that has heretofore been a dead loss and that would be wasted this season were it not for the entrance of a score or more big canners into the Florida citrus picture. While the canners take only grapefruit, there is always a good market for orange juice, and this is now being taken from fresh fruit, slightly processed, handled in porcelain containers, in refrigeration, and sent to eastern dispensers who serve it to satisfied customers, actually as palatable, healthful and delicious as when squeezed from the fruit."

Melon Markets Unsettled

MARKETS for watermelons were very sensitive to conditions of supply and weather. During the prolonged high temperatures of mid-summer, prices were fairly favorable and demand

was good. In later August, however, weakness again developed and demand for this product was not so active. The last report from central Georgia showed medium-sized melons returning only \$25-\$115 per carload, on a cash-track basis. City prices also were rather moderate.

Shipments from the important southeastern States ran far ahead of last year's record, except for the early crop in Florida. Texas also forwarded many more cars than in 1929. Sections farther north were beginning to ship watermelons, and Missouri, Arkansas, and Oklahoma were active in the Middle West. Total of 44,110 acres in the 14 late-shipping States is 30% more than they had a year ago and is the largest acreage in several seasons. As movement began from this group of States, the average daily shipments from all producing areas were still about 650 cars but were soon expected to decrease. Relatively few watermelons move after August.

Cantaloupes Abundant

PRODUCTION of cantaloupes and similar melons in a dozen intermediate States was forecast at 7,927,000 crates, or 28% more than last year and 19% above the record crop of 1928. Higher yields per acre than last season were indicated for nearly all States. Arizona and California had about 70% of the total production in this group. Arizona shipped 5400 cars. Plantings of cantaloupes in the late States are slightly less than last year. Colorado is the most important source of the late supply, and movement had started from that State during early August. About 3200 cars came from Colorado last season, in addition to shipments of 1500 cars of miscellaneous melons. As total cantaloupe movement from all sections decreased to around 100 cars daily, prices in city markets and at shipping points tended to advance.

Vegetables in Moderate Supply

SUMMER months usually are the period for lightest carlot movement of most vegetables. This year was no exception. Shipments of potatoes were down to an average of 400 cars daily in mid-August. Lettuce averaged 150 cars each day, onions 70, cabbage and tomatoes about 50 cars each, sweet potatoes 35 cars, celery 25, and green peas 20 cars a day. Other vegetables moved in a still lighter volume. Homegrown or trucked-in vegetables were abundant, except in districts affected by drought. Prices of potatoes were generally advancing, as the supply was temporarily limited. Most other products were at a fairly moderate level. Production of late tomatoes and lettuce will be heavier than in 1929.

Vegetables for canning or manufacture were hit by the heat and drought in many parts of the country. Production will not be in proportion to the increased plantings this year. Tomatoes for manufacture will be only 5% more plentiful and green peas about 9% more abundant than last season. Snap beans may fall slightly below last year's crop, and sweet corn is expected to be 9% short of the 1929 crop.

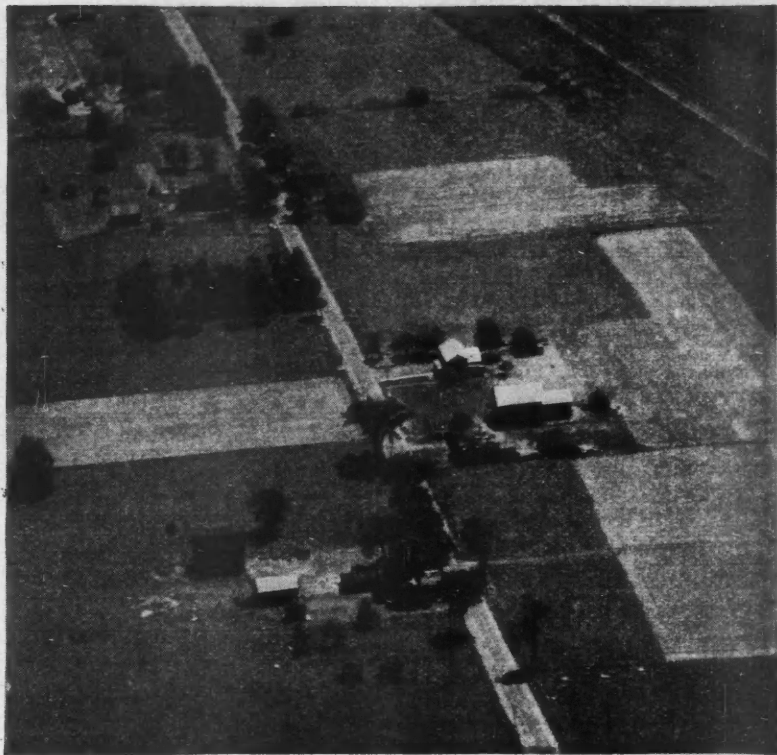
Potato Crop Reduced

POTATO prospects were reduced more than 6% during July by the heat and drought that was general over the eastern half of the country. Condition of the crop declined from 83% of normal on July 1 to 76% on August 1. This season's production is now indicated to be less than 373,000,000 bushels, which would be only 3% larger than the short 1929 crop and 5% below the average production of the preceding five years. Per capita production may be around 3 bushels.

The loss in yield prospects during the month was particularly sharp in a belt from Nebraska and the Dakotas through to Pennsylvania, Maryland, and Virginia. In the North Central States the expected yields on August 1 were only 11% above the low average yield of 1929 and 6% below the average of the years preceding. Later reports from a number of these States show further loss in yields had occurred during the first week in August, which may reduce the August 1 forecast by as much as 8,000,000 bushels. Local rains during the same period in some other important areas will help the crop, but ample moisture was still wanting. Conditions in New Jersey, New York, and New England continued to indicate better than average yields, except in Aroostook County, Maine, where yields are now expected to be slightly below average because of excessive rains. In the western States, yields are expected to equal those of last year, although slightly under the 10-year average. The South Atlantic States will likely have the lowest yield since 1914 and the South Central the lowest since 1927.

The losses in expected production during July amounted to 7% in the 19 States. (To page 12)

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You know the average time it now takes you to work an acre, and the cost in labor, fuel, use of machinery, etc. Try Ethyl Gasoline, keep an accurate record of the work accomplished, time required and the cost. You will note a marked advantage in favor of Ethyl.

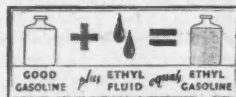
Ethyl Gasoline gives you added power and flexibility, less gear shifting, a smoother, cooler running motor. There is less vibration, and slower depreciation. That's because Ethyl Gasoline is good gasoline *plus* Ethyl anti-knock fluid, the ingredient

developed by automotive research to improve the performance of gasoline motors of every kind and description.

Try Ethyl in your truck too and note its increased efficiency, the greater number of miles it will travel in a given time. And remember that an added saving is effected through keeping your equipment working right through the season without frequent lay-up for carbon removal.

Try Ethyl in your passenger car. It will run much better. More power, quicker response, smoother operation. It's easier and more enjoyable to drive with Ethyl. On sale in your locality at pumps bearing the emblem shown below. Ethyl Gasoline Corporation, Chrysler Building, New York City.

The active ingredient used in Ethyl fluid is lead.



Wherever you drive—whatever the oil company's name or brand associated with it—any pump bearing the Ethyl emblem represents quality gasoline of high anti-knock rating.

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ETHYL GASOLINE

THE CURB MARKET

RATES: Per word, for Classified Advertisements in "agate" type, first line capital letters, 15 cents per word, including name and address. No advertisement accepted as less than 24 words. (Minimum cost \$3.60.) **DISPLAY ADVERTISEMENTS,** of type matter only (no illustrations, trade-marks, etc.) set wholly in our type, \$19.50 per inch, cash with order. No Display Advertisement of less than 1-2 inch. Orders may be sent direct, or through any recognized advertising agency.

AGENTS-SALESMEN WANTED

WE START YOU WITHOUT A DOLLAR. SOAPS, extracts, perfumes, toilet goods. Experience unnecessary. Carnation Co., 278, St. Louis, Mo.

AGENTS WANTED—EARN \$10 TO \$15 A DAY in your spare time selling ranges, stoves and furnaces direct from factory. Write giving full details. Box A, American Fruit Grower Magazine.

BIG MONEY DAILY SELLING SHIRTS, TIES, Underwear, Box, Raincoats, Lumberjacks, Sweaters, Leather Coats, Mackinaws, Coveralls, Pants, Children's Playuits. Outfit Free! Experience unnecessary. Nimrod Co., Dept. 102, 4922-28 Lincoln Ave., Chicago.

IF YOU WANT A WONDERFUL OPPORTUNITY to make \$6.00 profit a day steady and get a new Ford Sedan besides, send me your name immediately. No experience necessary. Particulars free. **ALBERT MILLS, 5270 MONMOUTH, CINCINNATI, O.**

MAKE GOOD MONEY—MEN AND WOMEN— Sales of our product in spare time will double your income. Factory fifty years in business behind you. No experience necessary. Box M, American Fruit Grower Magazine.

DOGS

COON, 'POSSUM, SKUNK, RABBIT, AND FOX hounds, trial, cheap. Herrick Hound Kennel, Herrick, Ill.

FOXHOUNDS, COONHOUNDS, RABBITHOUNDS, Bluebirds, Redwings, Blackbirds. Supply Catalogue. Kaskaskia, E-39, Herrick, Ill.

HUNTING HOUNDS—TRIAL, PAY RETURN Express if not satisfied. Reliable Kennel, Herrick, Ill. **FOR SALE—20 CHOICE COONHOUNDS** at mid-summer prices. Buy early on long trial. Kevill Kentucky Kennel, Kevill, Ky.

EQUIPMENT

REX APPLE GRADER OF LARGE CAPACITY, either boxes or barrels. Two or three grades with three or four sizes for each. Excellent condition. Only used one season. Original cost \$1,600. Open to any reasonable offer. P. H. Babcock, Harvard, Mass.

FARMS AND ORCHARDS

80 ACRES OLD APPLE ORCHARD, GOOD varieties, for lease to experienced, reliable man. Would sell. T. J. Murray, Springfield, Missouri.

COMMERCIAL ORCHARDS OF ALL SIZES in Virginia, West Virginia, Georgia, North Carolina, Tennessee, Maryland, Delaware and Pennsylvania. Wilder & Co., Orchard Brokers, Charlottesville, Va.

ORCHARD, 3000 APPLE TREES, 160 ACRES. Some timber. Good buildings with modern conveniences. Close to town of Bedford, Pa. Adjoins lands of Bedford Springs Hotel. Send for illustrated folder. Box 553, Windber, Pa.

1,000 ACRES IN EXCELLENT DAIRY SECTION, Erie County, New York. Splendid markets; soil, gravel, chocolate loam; 600 acres tillable, balance timber, cutting 500,000 feet, and pasture; never failing springs; 3 houses; all improvements; large barns, hog houses, henhouses, well stocked; all implements; farm partly seeded to potatoes; oil and gas lease. No incumbrance. Owner retiring. Other attractive farms also, both dairy and fruit, at reasonable prices. Harrison Real Estate Corporation, Liberty Bank Building, Buffalo, New York.

FARMS WANTED

WANTED—TO HEAR FROM OWNER OF LAND for sale. O. Hawley, Baldwin, Wis.

Many Apples in the Arkansas Ozarks this Year

By HARRY B. TABER

IT IS A year of plenty in the Arkansas Ozarks and one that occurs not more than one year in seven, when both price and production in the apple industry hit at the same time. The northwest counties of Washington and Benton comprise one of the largest single apple belts in both the south central and north central group of apple-producing States.

While northwest Arkansas had the shortest apple crop in years in 1929, this year her thousands of well-tended apple trees, despite the unusual drought conditions of spring and summer and the sub-zero weather of last winter, bid fair to yield better apples and considerably more of them than last year, and the price is likely to average better. This year's production of apples in the State should be between 750 and 800 cars, with some estimates running even higher, compared with a total of 500 cars in 1929. While the condition of the crop is reported a little lower than that of last year for the State as a whole, the production estimate as of July 14, as issued by Charles S. Bouton, of Little Rock, Ark, agricultural statistician of the United States Department of Agriculture, is set at 1,575,000 bushels as compared with 1,400,000 bushels in 1929; and in commercial barrels at 320,000 barrels as compared with 220,000 barrels last year.

A large part of the Arkansas apples come from the famous fruit section of Benton and Washington counties in the Ozarks, where this crop has been a mainstay of farmers for many years. Then there are scattering shipments from the

counties of Sebastian, Seracy, Carroll, Boone and Pike, and a comparatively new apple district in the State, which in the last few years has produced an excellent quality of fruit, is to be found near Ola, in Yell county. Other points in the Arkansas River Valley in Arkansas also have excellent orchards, though mostly for home use, but indicating that this crop can be extended in scope farther south in the State for commercial orchards.

The main variety of apple grown in Arkansas is the Ben Davis, with the Jonathan next, followed in lesser acreages by the Delicious, Winesap, Transparent, Mammoth Black Twig, Ada Red, Sweet Bough, Maiden Blush and others. Some of the earlier varieties are already on the market. With the condition of the apple crop and its production somewhat lower than usual from indicated estimates in several of the main-producing States of the north and northwest, notably Washington and New York, and with many other fruit crops short this year—peaches being almost a total loss in Arkansas and short in many other sections, excepting Georgia, the outlook for an active market for Arkansas apples, together with a good price, is very bright. In fact, this fall the Arkansas apple, more familiarly known as the "Legal Tender or Red Gold, of the Ozarks," should bring into the pockets of Arkansas fruit growers several hundred thousands of dollars, to make the Ozarks section even more assured than ever of being the "Land of a Million Smiles."

Fruit and Vegetable Review

(From page 11)

plus-producing States, and more than 8% in the 16 deficient States. Production in the southern States is estimated to be 11% greater than in 1929. The production forecast on August 1 is 261,442,000 bushels for the surplus States, 74,782,000 for the deficient States, and 36,333,000 for the southern group.

Markets Strengthen

NEW JERSEY was furnishing nearly half the total carlot supply of potatoes in August, though all northern and western States were beginning to make shipments. The main crop season apparently was opening earlier than usual. F. o. b. prices at Jersey loading stations advanced to top of \$1.85 per 100 pounds and then began to slip downward again. The Kaw Valley, Kansas, season closed with the shipping-point price around \$1.50. New Jersey Cobblers were ranging \$1.65-\$2.20 per 100 pounds in large consuming centers, while Eastern Shore barrels sold at \$3-\$4. The Chicago carlot market was strong at \$2-\$2.15 per 100 pounds of Missouri Cobblers, with arrivals from Wisconsin at \$2.20, and partly-graded Minnesota Early Ohio's selling at \$1.60-\$1.70. Colorado and Idaho Bliss Triumphs ruled \$2.40 in Chicago. Prospects were for rather favorable prices, at least until digging of the late potato crop becomes active.

Fewer Sweet Potatoes

THE condition of sweet potatoes on August 1 was reported at 65%, the lowest condition reported on that date since records began in 1869. Production is forecast at 66,251,000 bushels, which would be nearly 22% less than the crop harvested in 1929, about 11% smaller than the five-year average (1924-1928), and the smallest since the very short production of 1925. With the continuation of dry weather, the crop was expected to deteriorate further.

Shipments in August were coming chiefly from Virginia, North Carolina, Georgia, Alabama, and Louisiana, but total output was scarcely over 200 cars a week. Barrels from Virginia and southeastern sections were jobbing at \$6-\$7, with Detroit quoting some sales at \$8. Alabama Triumphs sold at \$1.75-\$2.75 per bushel hamper, and Mississippi Nancy Halls around \$3.

Onion Crop Estimated

WITH plantings of onions in 17 late States increased about 4% over last year to a total of 56,920 acres, the crop was forecast in August at 19,261,000 bushels, or nearly 5% more than the large crop of 1929. Indiana and New York led, with more than 3,000,000 bushels each. Michigan expected a good crop of some 2,445,000 bushels. Colorado expected a reduction of one-fifth from its heavy crop of last year. Onions in a number of the central States were beginning to show effects of heat and drought. August movement was limited. About one-third the shipments were originating in Massachusetts. The f. o. b. market in Connecticut River Valley had strengthened to a level of \$1.55 per 100-pound sack, and demand was temporarily exceeding the supply. City dealers got mostly \$1.50-\$2.25 for these onions.

More Cabbage This Year

PRODUCTION of cabbage in 14 intermediate States was forecast at 165,800 tons or only about 2% more than last year. Heat and drought cut production considerably below original expectations. The crop of domestic-type cabbage in 10 late States was expected to total 289,350 tons, compared with 252,600 last season. New York looked for nearly 99,000 tons, while Wisconsin was greatly increased to 81,000 and Michigan to 25,000 tons. Colorado likewise showed a large increase. Much of this domestic cabbage is used for kraut manufacture. Plantings of Danish-type cabbage in 8 late States were estimated at 36,970 acres, or 9% more than last season. All the important States show gains. New York reports about 21,000 and Wisconsin 9240 acres. Condition of the Danish crop in August was slightly lower than a year ago and 5 points below the average August condition for the preceding 10 years. Recent shipments were principally from points in New York, Wisconsin, Iowa, and Colorado. Northern Colorado reported a firm f.o.b. market at \$1.50-\$2 per 100 pounds.

Upon the completion of a roadside market survey by the Bureau of Statistics and Inspection of the State of New Jersey it is estimated that the annual sales at roadside markets within the State amounts to \$1,500,000.

Hindrances, obstacles and disappointments mean nothing to a person who has the right kind of stuff in him.

Safety Ladder Crotch

The "crotch" is bolted to end of any "A" type ladder. All steel, covered with rubber to prevent injury to limbs. Saves time. Not necessary to hunt for crotch in tree to place end of ladder. Can be used where you want it. On the high headed, slender limb or on the outspreading lower limbs. Especially valuable on hillside or rough, uneven ground, as the top of ladder is always secure. Never in the way. Used and endorsed by leading commercial fruit growers in central west.



60c each 3 for \$1.50

Postpaid in the U. S.

(We do not sell ladders)

Your money back if not pleased

The Thomas Co., Easley, Mo.

Index to Advertisements

The concerns whose advertisements appear listed below are equipped to give prompt and satisfactory service to the American fruit grower. Most of them issue literature that is freely at the disposal of our subscribers. It is to the advantage of all that when writing to an advertiser you use the address exactly as it appears in the advertisement, and that you state in your letter: "I read Your Advertisement in AMERICAN FRUIT GROWER MAGAZINE."

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MAILING LISTS

Commercial Fruit Growers at \$10.00 per M.
Commercial Vegetable Growers, \$10.00 per M.
12,000 Largest Commercial Fruit Growers in Middle Atlantic and New England.....\$100.00
22,300 Commercial Citrus Growers, per M.....10.00
25,000 Leading Commercial Apple Growers in U. S.225.00
10,000 Commercial Growers of Berries and Small Fruits, per M.....10.00
6,600 Commercial Strawberry Growers.....72.00
1,000 Up. Nursery Ing. and Order Names 10.00
Mailing Lists of over 15,000 classifications. Send for complete price list and State Counts on Commercial Fruit and Vegetable Grower names.

F. D. PICKENS CO.
JANESVILLE, WISCONSIN

Should I Contribute to Apple Advertising?

By JOHN NAPIER DYER

President Indiana Horticultural Society

TO ADVERTISE any individual apple business or that of any association is an impractical thing to do because the cost has been found to be prohibitive. The fundamental thing which lies behind the whole proposition of apple advertising is that the consumer demand for apples has been decreasing constantly during the past several years in direct proportion to the increase of highly advertised and directly competitive fruits.

It is only necessary to again remind one that for as many years as most of us of this generation can recall the apple was regarded as the King of Fruits. How many school boys and girls so regard it today? Very few indeed. Its kingdom has been overthrown and the teachers of home economics have been influenced by the power of advertising to believe that oranges and bananas are superior to the apple and they pass this information on to their pupils.

The average intelligent mother has been reading the orange advertisements for a long enough time to have become converted to the idea that orange juice is a health tonic. Whereas, the good mother was probably raised on a scraped apple before oranges were available and she still possesses a full set of teeth which grew up with her from childhood and have remained with her through all the years because she was taught to believe that "An apple a day keeps the doctor away."

DO NOT let any false notion enter your head that doctors make oranges popular and that they created the fashion for orange juice. Not until the California and Florida producers of oranges began to tell the world that oranges have all the virtues of the apple and many more, did they reach that point in business progress which made the orange business profitable. Sensible organization which keeps the available supply just within the demand maintains a price level which gives the business a profit. To stop advertising and trust to luck or the doctors would be to commit business suicide.

And the lowly vegetable called banana, depends for its success as a business getter to an association with fruits. As a fruit is has absolutely no merit, being a carbohydrate vegetable, but through advertising its consumption has been increased to a point where it has become the leading "fruit" of the country.

THOSE who own and operate the business of oranges and bananas are hard-headed American business men and it is inconceivable to think that they would spend their stockholders' money in advertising unless results were to be gained thereby.

Last year, as an experiment, winter pear growers of Medford, Oregon, comprising about 17 different growers, pooled a small part of their crop under a joint ownership trade-marked name and shipped this fruit to Detroit, at the same time conducting an advertising campaign over the radio and in the Detroit daily newspapers. The campaign over the radio was extremely successful. Growers received a good price for their winter pears. On the other hand, the growers of winter pears in other Oregon districts who were not in the advertising campaign, received a lower price for their

pears. So successful was this little advertising experiment that these same pear growers have decided to extend their operations, and during the coming year they will conduct similar advertising campaigns in other cities and induce more growers to join in the co-operative advertising movement.

I wonder what effect this increased pear consumption in Detroit had upon the business of oranges, bananas and apples. If pear advertising will cut down apple sales in Detroit, is it not high time for the apple grower to meet this competition by better advertising? No reasoning by any analogy can make an intelligent apple producer believe that he must lie down, quit business and permit the pear growers of the Northwest to usurp his markets. It is advice of this character which has put the apple industry in the plight in which it finds itself today.

WE HAVE been led to believe that the United States Department of Agriculture through its highly scientific organization was doing all that could be expected to promote the interests of all fruit growers, but recent pronouncements by leaders in the department have opened the eyes of the apple grower to the knowledge that he is being penalized to the advantage of growers of other fruits.

A recent Washington news dispatch carries the interesting announcement that the British Embassy has sent a note to the State Department declaring a temporary embargo on certain types of American apples. The types of apples embargoed are those grown largely in the southeastern part of the United States, and these growers will find it increasingly difficult to locate domestic markets for their excess production, hitherto sold in foreign countries, principally Great Britain.

ONE hundred twenty million people in this country consume approximately the annual apple crop of 96,000,000 bushels or 12,000,000,000 apples, making the average annual consumption 100 apples per person or about one-fourth apple per day per person. If banana advertising during the past five years has increased banana consumption 18 per cent and prices 24 per cent, the same ratio of increased apple consumption would increase the per capita consumption by 2,160,000,000 apples, or an increased consumption of 17,280,000 bushels.

A little advertising at a cost of one cent per bushel to all the apple growers would raise a fund of approximately one million dollars and solve this marketing problem. If each person in the country were to eat one apple a day, 360 apples a year, they would consume 43,800,000,000 apples a year, or nearly four times the present crop. Any gain over the one-fourth of an apple a day, the present consumption, to one apple a day would mean profits for apple growers.

The statement by a representative of the Department of Agriculture that "any advertising of a raw fruit or a fresh vegetable which results in largely increasing its use will usually result in curtailing our purchases of other foods in the same general class" is not compatible with the policy of every food producer in the country who strenuously works to increase the consumption of his product through judicious advertising. Surely, from the viewpoint of a practical apple grower, there would be no objection to the apple industry conducting an educational campaign of advertising.

APPLE growers have had their markets and profits taken away by the advertising efforts of other food industries, and yet the apple grower has no right to say that those industries should not encroach upon their markets. The practical, common-sense, business answer to the challenge of apple competitors' advertising, is to advertise in retaliation. This can be done only through the co-operative effort of all apple growers, through a national advertising association.

Apple growers are confronted with a condition and not a theory. What effect apple advertising might have upon other food industries is only to be considered insofar as the ethics of the advertising campaign is concerned. With the voluminous advantages which the apple has over every other known fruit, it would be comparatively simple and entirely ethical to place the apple where it used to be, "on top of the pile," when it was the only fruit commonly consumed in all homes, by young and old, generally approved and recommended by physicians and dieticians, and the only fruit known to have health qualities.

So far as the successful advertising of apples is concerned, it is just as simple as the advertising of the orange, the banana or any other food commodity. There is no fruit in the world which has a more attractive appeal to the eye, there are few fruits more delicious and there are no fruits more beneficial to the health of the average individual than a sound apple. From a medical standpoint, the apple offers more to the American public than any other fruit—bar none.

A representative of the Department of Agriculture leaves it to be inferred that Apples for Health, Inc., the apple advertising association, is not receiving proper financial support. This is entirely contrary to the facts in the case. That organization has laid a magnificent foundation for an apple advertising campaign. Its funds have been sufficient to carry on the work necessary to be done. The co-operation of basket and barrel manufacturers who have volunteered to collect from each grower one cent per package, three cents per barrel, to defray the cost of apple advertising, and connection of one of the outstanding national advertising concerns of the country with the project, insures its ultimate success.

Growers wherever acquainted with the plan have acclaimed it with enthusiasm. By putting in pennies they will take out dollars.

Georgia Growers Have Successful Season

GEOORGIA peach growers, according to reports recently given out by the State Department of Agriculture, received more than \$7,250,000 for this year's crop.

The peach season was one of the most successful in the history of the State, compensating to a large extent for the two previous unsuccessful seasons. The total shipments amounted to 8633 cars—within 133 cars of the advance estimate made by the State department of agriculture—and the price received averaged \$850 a car.

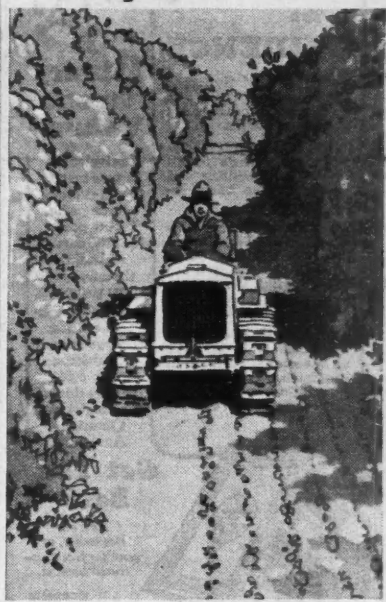
Merriwether county took the lead in peach production for the State this year, with a total of between 1300 and 1400 cars, succeeding Upson county as the leading peach county of the State.—J. H. Reed, Georgia.

Lowering Fruit Losses

A NEW bulletin, entitled, "Some Factors Influencing the Keeping Quality of Fruit in Transit," has been released by the College of Agriculture, University of Illinois, Urbana. According to results of tests conducted by the experiment station of the college, as reported in this bulletin, damaged fruit, now a heavy drain on the profits of Illinois fruit growers, could very largely be prevented by proper precautions in picking, handling, grading and packing.

Three phases of the problem were investigated by the college workers in attempting to work out ways whereby Illinois growers could protect their profits. They compared the careful with the rough handling of strawberries, summer apples and peaches; the prompt with delayed loading of these same three commodities, and studied the use of different types of packages for strawberries and peaches. The work was done by J. W. Lloyd, chief in olericulture, and H. M. Newell, associate in fruit and vegetable marketing, the authors of the new bulletin.

Straightaway or Sharp Turn » »



Cletrac performance has no equal

ON the straightaway, brisk, sure-footed travel that eats up distance! At the end of the row, a quick, sharp turn in an unbelievably short radius—and again you are swinging swiftly down the straightaway. That is Cletrac performance, fast, easy, nimble—ideal for the close-quarter work of the fruit grower—readily meeting every need for power and flexibility.

And Cletrac is so simple to operate! You do less shifting of gears—you have trigger-like control with just a touch of the hand—you have the comfort of a wide easy seat—you take no time out for hand oiling or greasing. Every improved feature that modern engineering has developed has been made a part of these better tractors to give you the utmost in power efficiency and convenience.

Cletracs cost no more than other power units. They are priced as low as \$1095 F. O. B. Factory—and are built in a complete line of sizes to match any power need. Why not arrange to see the Cletrac dealer nearest you for a demonstration—or write direct for full information?

THE CLEVELAND TRACTOR CO.
19301 Euclid Ave., Cleveland, Ohio



For Earlier and Better Crops—use

CARUS MANGANESE SULFATE

Plants treated with it will mature earlier bearing fruit of superior quality and flavor. Also assists in correcting Chlorosis (Yellows) of tomato, spinach, cucumber, and all other plants. 60 pounds treats an acre!

Can be applied mixed with your regular fertilizer or as a side dressing to the young plants. When mixed with nitrogen, phosphorus and potash commercial fertilizer, it replaces manure.

Reprints of articles on the application of Manganese Sulfate to plants and its merits sent on request.

Write for copies today!

CARUS CHEMICAL CO., Inc.,
Box 364GI La Salle, Ill.



Effect of Manganese Sulfate on Potatoes on Dade County Glade soil. Section on left received no Manganese Sulfate and section on right 50 pounds per acre.

Try a small 50 or 100 lb. keg of **CARUS MANGANESE SULFATE** on your various plantings. Introductory price 50 per pound f.o.b. La Salle, Illinois

"The Supreme Authority"

WEBSTER'S NEW INTERNATIONAL DICTIONARY

Here's the EVIDENCE

Hundreds of Supreme Court Judges concur in highest praise of the work as their authority.

The Presidents and Department Heads of all leading Universities and Colleges give their endorsement.

The Government Printing Office at Washington uses the New International as the standard authority. High Officials in all branches of the Government endorse it.

The Colleges voted overwhelmingly in favor of Webster as standard of pronunciation in answer to questions submitted by the Chicago Women's Club.

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G. & C. MERRIAM COMPANY
Springfield, Mass.

HOTEL ATLANTIC

MOST CENTRALLY LOCATED AT
CLARK STREET NEAR JACKSON BOULEVARD

ONE BLOCK FROM LASALLE STATION POST OFFICE & BOARD OF TRADE

450 ROOMS A DAY AND UP

FAMOUS FOR FOOD

SEND FOR COPY OF CHEF'S RECIPES AND DESCRIPTIVE FOLDER

WHEN YOU GO TO ST. LOUIS STOP AT THE NEW HOTEL JEFFERSON 800 ROOMS

CHICAGO

St. Louis'

FINEST HOTELS

Lennox . .

9th and Washington, Saint Louis' newest, smartest. Tub and shower in every room. 400 Rooms—Rates from \$3.00

Mayfair .

9th and St. Charles. The quiet atmosphere of an exclusive club. 400 Rooms—Bath in each Room—Rates from \$3.00.

Kings-Way . .

Kingshighway at West Pine. Opposite beautiful Forest Park. Room and Bath for 2 from \$4.00.

Operated by Heiss Hotel System

"P. D. B." for Peach Borers

(From page 6)

One and one-fourth ounce doses should be used on very old trees, if the trunks are unusually large. In States where the chemical is also recommended for young trees it is usually used at the rate of one-half ounce for one and two-year-old trees, and one-half or three-fourths of an ounce for three-year-old trees.

When to Apply

EXPERIMENTATION has shown that best results with paradichlorobenzene for peach borer control are obtained in the fall at the end of the oviposition period of the insect. At that time the borers are small and more easily killed by the gas. The material should not be applied earlier on account of the possibility of a late infestation becoming established, and, on the other hand, the application should not be delayed since very little volatilization of the chemical takes place after the soil temperature drops below 60 degrees Fahrenheit. In the latitude of the Gulf States the chemical should be applied from October 1 to 5 for the northern section, October 10 to 15 for the central section, and October 15 to 20 for the southern section. In the mountainous section of northern Georgia the chemical should be applied between September 25 and October 1.

Dates for applying paradichlorobenzene in other peach producing sections are as follows:*

South Carolina—Between October 1 and 14. In the northern and western parts of the State the application should be made about October 1, and in the southern part nearer October 14.

North Carolina—September 15 to 30 in the Piedmont and Mountain sections. October 1 to 15 in the Sandhill section.

Tennessee—October 10 to 15.

Virginia—September. May applications are recommended in cases where for an unavoidable reason the fall application could not be made.

Maryland—Around September 15 for western Maryland. October 1 to 15 for eastern shore.

Pennsylvania—September 10 to 30 for northern and elevated counties. September 15 to October 15 for southern counties.

New Jersey—September 15 for northern half of State. October 1 for southern half of State.

New York—First week in September.

Connecticut—September 1 for a six weeks' exposure.

Massachusetts—Last week in August and first 10 days of September.

Ontario, Canada—Mid-September.

Michigan—Late in August or about the first of September.

Indiana—Northern, September 10 to 20; central, September 15 to 30; southern, September 25 to October 10.

Illinois—Northern, September 10 to October 5; central, September 20 to October 10; southern, September 25 to October 15.

Missouri—North of Missouri River, September 20 to October 5; South of Missouri River, September 25 to October 10.

Arkansas—Last week of September and first week of October; one week later for southern part of State.

Colorado—First two weeks in September.

The desired results cannot be expected unless the material is applied on or very close to the dates recommended, and growers are cautioned to give careful attention to this point.

Preparing the Soil

NO PREPARATION of the soil is necessary except to remove grass, weeds and trash for about a foot from the tree trunk, and then smooth the soil surface with the back of a shovel. Do not mound the trees before applying the paradichlorobenzene if there are no borers working in the tree trunk above the soil level. As the gas from the chemical is much heavier than air, any borers working in the tree above the point where the crystal ring is placed will not be affected by the gas. Consequently, it is very necessary to place the crystals at

least at the level of the topmost borer gallery. Should there be indications of borers working in the tree trunk just above the soil level, sufficient soil should be placed around the tree to bring the level of the soil up above the gummy exudation before applying the chemical.

How to Apply

THE MATERIAL should be applied in a continuous band about one or one and one-half inches wide about the tree, and about one or one and one-half inches from the trunk (Figs. 1 and 2). Avoid placing the crystals against the tree (Fig. 3), or too far from it (Fig. 4). Several shovelfuls of soil free from stones, sticks and trash should be placed on the crystal ring and packed with the back of a shovel. The packing of the soil after it is placed on the chemical is important in order to prevent surface loss of the gas and to prepare a mound which serves as a container for the gas. This mound also prevents surface washing of the crystals. Avoid pushing the crystals against the tree trunk with the first shovelful of soil when covering the ring.

Later Attention to Mounds

IN USING paradichlorobenzene around four and five-year-old peach trees in the South, growers are advised to tear down the mound 28 days after applying the chemical to trees of those ages, in order to remove all unspent crystals and to allow the confined gas to escape. As an added precaution against injury to the older trees in the South, it is also advisable to tear down the mounds six weeks after making the application to trees six years of age and older. If the soil is removed from below the original soil level in tearing down the mounds, it should be replaced before cold weather sets in.

In regions where paradichlorobenzene can be used with safety on young trees, it will perhaps be well to remove the mounds 28 days after applying the chemical, although this may not be necessary, as in some States outside of the southern region no attention is given to the mounds until the spring following treatment.

Grade of Paradichlorobenzene

ORCHARDISTS are strongly advised to use only unadulterated paradichlorobenzene, and when ordering to specify a grade of about the fineness of granulated sugar. Successful results cannot be assured with a compound containing only part paradichlorobenzene and part of an inert material, since there can be no certainty of the amount of the chemical present when used.

Special Certificates for Export Apples

IN COMPLIANCE with the British and Scotch Quarantine Orders which require that apples grown in the United States and imported by Great Britain between July 7 and November 15, be certified as to grade by the United States Department of Agriculture, the department has printed special certificate forms which will be issued by Federal fruit and vegetable inspectors at ports of export on any lots of apples destined for England, Ireland, or Scotland. These special forms will be issued upon presentation by the exporter of regular point-of-origin certificates which show the apples to be U. S. Fancy or No. 1 grade for barreled apples, or Extra Fancy or Fancy for boxed apples. If an inspection certificate has not been obtained at the point of origin, regular destination certificates can be issued at ports.

An additional requirement is certification of distinguishing marks, such as: (1) Name and address of the packer, (2) variety, (3) grade, and (4) minimum size on count.

Arrangements have been made for issuing these special export certificates at Federal inspection offices at Boston, New York, Montreal, Philadelphia, Baltimore, Seattle, Portland, San Francisco, and San Pedro.

Mistress—Did you empty the water under the refrigerator?

Green Girl—Yes'm, and put in some fresh.

Autumn Styles

PRINCESS Suggestion (No. 3068). A charmingly slender type in Princess suggestion illustrated is in enchanting Lanvin green coloring. Designed for sizes 16, 18 years, 36, 38, 40 and 42 inches bust measure. Size 36 requires 3 yards of 39-inch material with $\frac{1}{4}$ yard of 18-inch contrasting and 1 $\frac{1}{2}$ yards of 1 $\frac{1}{2}$ -inch lace.



FOR Wee Maids (No. 2756). A cute mother huddard dress that will enhance your small daughter's loveliness. Designed for sizes 2, 4 and 6 years. Size 4 requires 2 $\frac{1}{2}$ yards of 39-inch material with $\frac{1}{4}$ yard of 35-inch contrasting and $\frac{1}{4}$ yard of ruffling.

LINGERIE Ensemble (No. 2619). A new lingerie ensemble consisting of tailored shorts and fitted bandeau, is quite the smartest idea for sports and all-around occasions. Designed for sizes 16, 18 years, 36, 38, 40 and 42 inches bust



measure. Size 36 requires 1 $\frac{1}{2}$ yards of 36-inch material with 2 $\frac{1}{2}$ yards of trimming.

SIMPLE Styling (No. 3243). It will be difficult to find a better choice for all-day occasions than this navy blue crepe silk frock relieved with a touch of Vionnet pink crepe. Designed for sizes 16, 18 years, 36, 38, 40 and 42 inches bust measure. Size 36 requires 3 $\frac{1}{2}$ yards of 39-inch material with $\frac{1}{4}$ yard of 39-inch contrasting.

Patterns may be secured by mail, postage prepaid, at 15 cents each from AMERICAN FRUIT GROWER MAGAZINE PATTERN SERVICE, 261 Fifth Avenue, New York City. Be sure to state size required. Enclose 10 cents additional for copy of Fall and Winter Fashion Magazine.

*These dates have been supplied by the State entomologists of the States mentioned.